TABLE 11

SCHEDULE OF AMORTIZATION BASES

(Base Benefits)

Amortization Bases	Original Amount	June 30, 2021 Remaining Payments	Date of Last Payment	Outstanding Balance as of June 30, 2021	Annual Contribution
2021 UAAL Base	(15,350,208)	20	7/1/2041	(15,350,208)	(1,285,261)
Total				\$ (15,350,208)	\$ (1,285,261)
1. Total UAAL Amortiza	ation Payments				\$ (1,285,261)
2. Projected Payroll for I	FY 2022				\$ 3,781,121,764
3. UAAL Amortization I	Payment Rate				(0.03%)
4. Remaining Amortizati	ion Period in Ye	ars (Weighted)	1		20.0

 $^{^{1}}$ The weighted average remaining UAAL amortization period is calculated by weighting the remaining amortization period of each base by the amortization amount of each base.



TABLE 12

DEVELOPMENT OF SURCHARGE RATE

(Supplemental Benefits)

Projected COLAs in Next Biennium Beginning July 1, 2023

First Anticipated COLA 1. Date of COLA commencement 2. Rate of COLA 3. Value as of July 1, 2023 of COLA	\$ January 1, 2024 0.4% 7,901,839
Second Anticipated COLA 4. Date of COLA commencement 5. Rate of COLA 6. Value as of July 1, 2023 of COLA	January 1, 2025 0.4% 8,093,644
7. Total COLA Funding Requirement as of July 1, 2023: (3) + (6)	\$ 15,995,483
Funding Sources for Projected COLAs	
 8. Assets as of June 30, 2021 Available for Future COLAs 9. Projected Contributions from 7/1/2021 to 12/31/2021 10. Expected Earnings through July 1, 2023 11. Projected Available Assets at July 1, 2023 	\$ 702,968 2,606,820 383,375 3,693,163
12. Required Additional Funding for Anticipated COLAs: (7) - (11)	12,302,320
Surcharge Rate	
13. Projected Payroll from 1/1/2022 to 6/30/2022 14. Projected Payroll from 7/1/2022 to 6/30/2023	1,862,014,311 3,822,715,380
15. Value of (13) and (14) as of July 1, 2023 16. Surcharge Rate: (12) /(15)	\$ 5,951,477,787 0.21%



TABLE 13

ACTUARIAL REQUIRED CONTRIBUTION RATE

(Base and Supplemental Benefits)

	 Base Benefits	Supplemental Benefits	Total	
1. Projected Payroll for FY 2022	\$ 3,781,121,764			
2. Normal Cost Rate as of June 30, 2020	5.73%	0.36%	6.09%	
Amortization of UAAL as of June 30, 2021 a. Dollar Amount b. Percent of Projected Pay	\$ (1,285,261) (0.03%)			
 Preliminary Actuarially Determined Contribution Rate: (2) + (3b) 	5.70%			
5. Supplemental Benefit Surcharge Rate		0.21%		
6. Actuarially Determined Contribution Rate Subject to Legal Constraints	5.70%	0.21%		
7. Board Policy Surcharge Rate (for 2022 calendar year)		0.21%		
8. Board Policy Contribution Rate			6.00%	



TABLE 14

INVESTMENT RETURN SENSITIVITY

(Base and Supplemental Benefits)

	1.00% Decrease: (5.25%)	0.75% Decrease: (5.50%)	0.50% Decrease: (5.75%)	0.25% Decrease: (6.00%)	Current Assumption: (6.25%)
Funded Status					
Actuarial Accrued Liability	\$8,856,356,149	\$8,493,724,227	\$8,150,513,525	\$7,825,541,239	\$7,517,703,347
Actuarial Value of Assets	7,162,958,020	7,162,958,020	7,162,958,020	7,162,958,020	7,162,958,020
Unfunded Actuarial Accrued Liability	\$1,693,398,129	\$1,330,766,207	\$987,555,505	\$662,583,219	\$354,745,327
Funded Ratio	80.9%	84.3%	87.9%	91.5%	95.3%
Actuarially Determined Contribution Amount					
Normal Cost	\$309,516,375	\$287,294,730	\$266,768,129	\$247,801,337	\$230,270,315
UAAL Amortization	131,855,433	105,552,251	79,773,472	54,497,193	29,702,540
Actuarially Determined Contribution Amount	\$441,371,808	\$392,846,981	\$346,541,601	\$302,298,530	\$259,972,855
Actuarially Determined Contribution Rate	11.67%	10.39%	9.17%	7.99%	6.88%
	0.25% Increase: (6.50%)	0.50% Increase: (6.75%)	0.75% Increase: (7.00%)	1.00% Increase: (7.25%)	1.25% Increase: (7.50%)
Funded Status					
Actuarial Accrued Liability	\$7,225,968,939	\$6,949,374,993	\$6,687,021,547	\$6,438,067,251	\$6,201,725,240
Actuarial Value of Assets	7,162,958,020	7,162,958,020	7,162,958,020	7,162,958,020	7,162,958,020
Unfunded Actuarial Accrued Liability	\$63,010,919	(\$213,583,027)	(\$475,936,473)	(\$724,890,769)	(\$961,232,780)
Funded Ratio	99.1%	103.1%	107.1%	111.3%	115.5%
Actuarially Determined Contribution Amount					
Normal Cost	\$214,061,258	\$199,069,715	\$185,199,807	\$172,363,489	\$160,479,894
UAAL Amortization	5,369,619	(15,720,542)	(35,844,868)	(55,841,678)	(75,710,481)
Actuarially Determined Contribution Amount	\$219,430,877	\$183,349,173	\$149,354,939	\$116,521,811	\$84,769,413
Actuarially Determined Contribution Rate	5.80%	4.85%	3.95%	3.08%	2.24%

Note: Comparisons are based on funding the COLA in the same method as the base benefit, rather than with a surcharge. Consequently, these results are for comparative purposes only and will not match the actual results under the funding policy.



GASB NO. 67 AND GASB NO. 68

The Governmental Accounting Standards Board issued Statement No. 67 (GASB 67), "Financial Reporting for Pension Plans" and Statement No. 68 (GASB 68), "Accounting and Financial Reporting for Pensions" in June 2012. The effective date for reporting under GASB 67 for the INPRS Plans was the fiscal year ending June 30, 2014. GASB 68's effective date for employers is the first fiscal year beginning after June 15, 2014.

The sections that follow provide the results of the required actuarial calculations set out in GASB 67 and GASB 68 for note disclosure and Required Supplementary Information (RSI). Some of this information was provided by the INPRS for use in this report.

The discount rate used for these disclosures is the assumed return on assets of 6.25%. We have verified that the current assets in conjunction with future contributions made on behalf of current members (including all contributions to fund any past service liability) will be sufficient to make the anticipated benefit payments to be provided to the current members.

To the best of our knowledge, the information contained in this report is complete and accurate. The calculations were performed by qualified actuaries according to generally accepted actuarial principles and practices, as well as in conformity with Actuarial Standards of Practice issued by the Actuarial Standards Board. The calculations are based on the current provisions of the plan, and on actuarial assumptions that are internally consistent and individually reasonable based on the actual experience of the plan. In addition, the calculations were completed in compliance with applicable law and, in our opinion, meet the requirements of GASB 67 and GASB 68.



TABLE 15

STATEMENT OF FIDUCIARY NET POSITION

			June 30, 2021
1.	Assets		
	a. Cash		\$ 201,138
	b. Receiva	ables	
	i.	Contributions and Miscellaneous Receivables	\$ 1,303,609
	ii.	Investments Receivable	61,909,861
	iii.	Foreign Exchange Contracts Receivable	1,418,335,531
	iv.	Interest and Dividends	16,557,794
	v.	Receivables Due From Other Funds	 0
	vi.	Total Receivables	\$ 1,498,106,795
	c. Investm	nents	
	i.	Short-Term Investments	\$ 0
	ii.	Pooled Repurchase Agreements	70,610,423
	iii.	Pooled Short-Term Investments	496,075,732
	iv.	Pooled Fixed Income	2,434,404,469
	v.	Pooled Equity	1,700,214,216
	vi.	Pooled Alternative Investments	3,669,880,014
	vii.	Pooled Derivatives	21,560,918
	viii.	Pooled Investments	0
	ix.	Securities Lending Collateral	 41,320,170
	х.	Total Investments	\$ 8,434,065,942
	d. Net Ca _l	pital Assets	0
	e. Other A	assets	0
	f. Total A	ssets: $a + b(vi) + c(x) + d + e$	\$ 9,932,373,875
	Liabilitie		
	a. Admini	strative Payable	\$ 60,786
		nent Benefits Payable	12,849,150
		nents Payable	386,099,825
	d. Foreign	Exchange Contracts Payable	1,408,000,329
	e. Securiti	es Lending Obligations	41,320,170
	f. Securiti	es Sold Under Agreement to Repurchase	96,171,818
	_	Other Funds	376,419
	h. Due to	Other Governments	 0
	i. Total Li	abilities: $a + b + c + d + e + f + g + h$	\$ 1,944,878,497
3.	Fiduciary	Net Position Restricted for Pensions: (1)(f) - (2)(i)	\$ 7,987,495,378



TABLE 16

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

		For Fiscal Year En	nding June 30, 2021
1. Fiduciar	y Net Position as of June 30, 2020	\$	6,325,311,322
2. Addition	s		
a. Contri	butions		
i.	Member Contributions	\$	0
ii.	Employer Contributions		202,352,758
iii.	Service Purchases (Employer and Member) ¹		600,700
iv.	Non-Employer Contributing Entity Contributions		0
v.	Total Contributions	\$	202,953,458
b. Invest	ment Income/(Loss)		
i.	Net Appreciation/(Depreciation)	\$	1,581,258,584
ii.	Net Interest and Dividend Income		88,015,706
iii.	Securities Lending Income		426,565
iv.	Other Net Investment Income		448,701
v.	Investment Management Expenses		(51,540,390)
vi.	Direct Investment Expenses		(2,067,119)
vii.	Securities Lending Expenses		(88,328)
viii.	Total Investment Income/(Loss)	\$	1,616,453,719
c. Other	Additions		
i.	Member Reassignments		5,566,367
ii.	Miscellaneous Receipts		(300)
iii.	Total Other Additions	\$	5,566,067
d. Total l	Revenue (Additions): a(v) + b(viii) + c(iii)	\$	1,824,973,244
3. Deductio	ns		
a. Pensio	n, Survivor and Disability Benefits	\$	155,348,220
b. Death	and Funeral Benefits		0
c. Distrib	outions of Contributions and Interest		0
d. Admir	nistrative Expenses ²		4,966,317
	er Reassignments		2,474,651
f. Miscel	laneous Expenses		0
g. Total l	Expenses (Deductions)	\$	162,789,188
4. Net Incre	ease (Decrease) in Fiduciary Net Position: (2)(d) - (3)(g)	\$	1,662,184,056
5. Fiduciar	y Net Position as of June 30, 2021: (1) + (4)	\$	7,987,495,378

¹ Service purchases paid by employer of \$135,987 and employee of \$464,713.

² Includes \$63,407 of hybrid plan contributions and \$0 of My Choice plan contributions made by INPRS.



TABLE 17
SCHEDULE OF CHANGES IN NET PENSION LIABILITY

For Fiscal Year Ending June 30, 2021

	,	Fotal Pension Liability	P	Plan Fiduciary Net Position		Net Pension Liability		
		(a)		(b)	(a)-(b)			
1. Balance at June 30, 2020	\$	6,403,252,089	\$	6,325,311,322	\$	77,940,767		
2. Changes for the Year:								
Service Cost (SC) ¹		190,036,960				190,036,960		
Interest Cost		439,928,627				439,928,627		
Experience (Gains)/Losses		96,922,883				96,922,883		
Assumption Changes		536,184,338				536,184,338		
Plan Amendments		3,034,254				3,034,254		
Benefit Payments		(155,348,220)		(155,348,220)		0		
Service Purchases								
Employer Contributions		135,987		135,987		0		
Employee Contributions		464,713		464,713		0		
Member Reassignments ²		3,091,716		3,091,716		0		
Employer Contributions ³				202,352,758		(202,352,758)		
Non-employer Contributions				0		0		
Employee Contributions				0		0		
Net Investment Income				1,616,453,719		(1,616,453,719)		
Administrative Expenses 4				(4,966,317)		4,966,317		
Other				(300)		300		
Net Changes	\$	1,114,451,258	\$	1,662,184,056	\$	(547,732,798)		
3. Balance at June 30, 2021	\$	7,517,703,347	\$	7,987,495,378	\$	(469,792,031)		

¹ Service cost provided as of beginning of year. Interest to end of year is included in the interest cost.

² Includes net interfund transfers of employer contributed amounts.

³ Includes \$5,000,000 of state appropriations to the fund.

⁴ Includes contributions made by INPRS for its employees of \$63,407 in the hybrid plan and \$0 in the My Choice plan.



TABLE 18
DEFERRED OUTFLOWS OF RESOURCES

	June 30, 2020	Remaining Period	Recognition	J	une 30, 2021
1. Liability Experience					
June 30, 2021 Loss	\$ 96,922,883	10.43	\$ 9,292,703	\$	87,630,180
June 30, 2020 Loss	0	9.60	0		0
June 30, 2019 Loss	0	9.07	0		0
June 30, 2018 Loss	0	8.47	0		0
June 30, 2017 Loss	33,185,643	10.00	3,318,564		29,867,079
June 30, 2016 Loss	19,206,015	9.00	2,134,001		17,072,014
June 30, 2015 Loss	0	8.00	0		0
June 30, 2014 Loss	232,652	6.00	38,775		193,877
2. Assumption Changes					
June 30, 2021 Loss	\$ 536,184,338	10.43	\$ 51,407,895	\$	484,776,443
June 30, 2020 Loss	0	9.60	0		0
June 30, 2019 Loss	0	9.07	0		0
June 30, 2018 Loss	0	8.47	0		0
June 30, 2017 Loss	0	10.00	0		0
June 30, 2016 Loss	0	9.00	0		0
June 30, 2015 Loss	150,852,026	8.00	18,856,504		131,995,522
3. Investment Experience					
June 30, 2021 Loss	\$ 0	5.00	\$ 0	\$	0
June 30, 2020 Loss	205,408,483	4.00	51,352,121		154,056,362
June 30, 2019 Loss	0	3.00	0		0
June 30, 2018 Loss	0	2.00	0		0
June 30, 2017 Loss	0	1.00	0		0
Total Outflows: (1)+(2)+(3)	\$ 1,041,992,040		\$ 136,400,563	\$	905,591,477

Information was provided prospectively from June 30, 2013 for GASB No. 68 purposes. Results prior to 2018 were produced by the prior actuary.

In accordance with GASB, the original amortization period for liability experience and assumption changes are amortized over the expected future working lifetime of all members, whereas the investment experience is amortized over five years.



TABLE 19
DEFERRED INFLOWS OF RESOURCES

		June 30, 2020	Remaining Period		Recognition		June 30, 2021
1. Liability Experience		,			8		,
June 30, 2021 Gain	\$	0	10.43	\$	0	\$	0
June 30, 2020 Gain	*	28,467,630	9.60	*	2,965,379	4	25,502,251
June 30, 2019 Gain		17,687,685	9.07		1,950,131		15,737,554
June 30, 2018 Gain		105,062,530	8.47		12,404,078		92,658,452
June 30, 2017 Gain		0	10.00		0		0
June 30, 2016 Gain		0	9.00		0		0
June 30, 2015 Gain		23,347,003	8.00		2,918,375		20,428,628
June 30, 2014 Gain		0	6.00		0		0
2. Assumption Changes							
June 30, 2021 Gain	\$	0	10.43	\$	0	\$	0
June 30, 2020 Gain		102,923	9.60		10,722		92,201
June 30, 2019 Gain		0	9.07		0		0
June 30, 2018 Gain		210,784,462	8.47		24,886,005		185,898,457
June 30, 2017 Gain		82,504,037	10.00		8,250,404		74,253,633
June 30, 2016 Gain		0	9.00		0		0
June 30, 2015 Gain		0	8.00		0		0
3. Investment Experience							
June 30, 2021 Gain	\$	1,187,951,806	5.00	\$	237,590,362	\$	950,361,444
June 30, 2020 Gain		0	4.00		0		0
June 30, 2019 Gain		20,590,973	3.00		6,863,659		13,727,314
June 30, 2018 Gain		49,857,662	2.00		24,928,833		24,928,829
June 30, 2017 Gain		10,843,055	1.00		10,843,055		0
Total Inflows:		· · ·			<u> </u>	-	_
(1)+(2)+(3)	\$	1,737,199,766		\$	333,611,003	\$	1,403,588,763

Information was provided prospectively from June 30, 2013 for GASB No. 68 purposes. Results prior to 2018 were produced by the prior actuary.

In accordance with GASB, the original amortization period for liability experience and assumption changes are amortized over the expected future working lifetime of all members, whereas the investment experience is amortized over five years.



TABLE 20
DEFERRED INFLOWS / OUTFLOWS TO BE RECOGNIZED IN PENSION EXPENSE

Fiscal Year Ending June 30	Defe	Deferred Outflows Deferred Inflows		Net Deferred Outflows/(Inflows)		
Current Year:						
2021	\$	136,400,563	\$	333,611,003	\$	(197,210,440)
Future Years:						
2022	\$	136,400,563	\$	322,767,944	\$	(186,367,381)
2023		136,400,563		297,839,111		(161,438,548)
2024		136,400,562		290,975,456		(154,574,894)
2025		85,048,442		290,975,452		(205,927,010)
2026		85,048,442		53,385,094		31,663,348
Thereafter		326,292,905		147,645,706		178,647,199



TABLE 21

PENSION EXPENSE UNDER GASB NO. 68

	For Fiscal Year Ending June 30, 2021
1. Service Cost, beginning of year	\$ 190,036,960
2. Interest Cost, including interest on service cost	439,928,627
3. Member Contributions ¹	0
4. Administrative Expenses ²	4,902,910
5. Expected Return on Assets ³	(428,501,913)
6. Plan Amendments	3,034,254
7. Recognition of Deferred Inflows / Outflows of Resources Related to: a. Liability Experience (Gains) / Losses b. Assumption Change (Gains) / Losses c. Investment Experience (Gains) / Losses d. Total: (7a)+(7b)+(7c)	(5,453,920) 37,117,268 (228,873,788) (197,210,440)
8. Miscellaneous (Income) / Expense	300
9. Total Collective Pension Expense: (1)+(2)+(3)+(4)+(5)+(6)+(7d)+(8)	12,190,698
10. Employer Service Purchases ⁴	135,987
Pension Expense / (Income): (9) + (10)	\$ 12,326,685

¹ Excludes member paid service purchases of \$464,713.

² Excludes contributions made by INPRS for its employees of \$63,407 in the hybrid plan and \$0 in the My Choice plan.

³ Cash flows assumed to occur mid-year.

⁴ To be expensed by the employers who purchased the service.



GASB NO. 67 and GASB NO. 68 NOTES TO THE FINANCIAL STATEMENTS

The material presented herein is a subset of the information requested as Notes to the Financial Statements. Required information not provided herein is to be supplied by the plan.

Actuarial Assumptions and Inputs

Significant actuarial assumptions and other inputs used to measure the total pension liability:

Type of Plan The Teachers' Retirement Fund 1996 Account is a cost-sharing multiple-

employer plan for GASB accounting purposes.

Measurement Date June 30, 2021

Valuation Date

Assets: June 30, 2021

Liabilities: June 30, 2020 – The TPL as of June 30, 2021 was determined based on an

actuarial valuation prepared as of June 30, 2020 rolled forward one year to June 30, 2021, using the following key actuarial assumptions and other inputs, such as benefit accruals and actual benefit payments during that time period.

Inflation 2.00%

Future Salary Increases 2.65% - 11.90% based on years of service

Cost-of-Living Increases As of June 30, 2021:

Members in pay were granted a 1.00% COLA on January 1, 2022 and no COLA on January 1, 2023. Thereafter, the following COLAs, compounded

annually, were assumed:

0.4% beginning on January 1, 2024 0.5% beginning on January 1, 2034 0.6% beginning on January 1, 2039

As of June 30, 2020:

In lieu of a COLA on January 1, 2021, members in pay were provided a 13th check on October 1, 2020. Thereafter, the following COLAs, compounded

annually, were assumed:

0.4% beginning on January 1, 2022 0.5% beginning on January 1, 2034 0.6% beginning on January 1, 2039

SECTION 6 - GASB INFORMATION



Mortality Assumption

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Healthy Employees – Teacher Employee table with a 1 year set forward for males and a 1 year set forward for females.

Retirees – Teacher Retiree table with a 1 year set forward for males and a 1 year set forward for females.

Beneficiaries – Contingent Survivor table with no set forward for males and a 2 year set forward for females.

Disableds – General Disabled table with a 140% load.

Experience Study

The most recent comprehensive experience study, based on member experience between June 30, 2014 and June 30, 2019, was completed in February 2020. The demographic assumptions were approved by the Board in June 2020 and were used beginning with the June 30, 2020 actuarial valuation. Economic assumptions were updated and approved by the Board in May 2021 following the completion of an Asset-Liability study and first used in the June 30, 2021 actuarial valuation.

Discount Rate

6.25%, net of investment expenses

The discount rate is equal to the expected long-term rate of return on plan investments, net of investment expense and including price inflation. The discount rate decreased from the 6.75% used on the prior measurement date.

The INPRS Board of Trustees has established a funding policy of setting the employer contribution rate equal to the greater of the current contribution rate (currently 5.5%) and a rate equal to the actuarially determined contribution rate which is based on the assumptions and methods selected by the Board for the annual actuarial valuations and projected covered member payroll. Based on this policy, the employer contribution rate will increase to 6.00%. The June 30, 2021 actuarial valuation assumes a long-term rate of return on assets of 6.25%, a 20-year level dollar closed method for amortizing the future layers of unfunded actuarial accrued liability (dropped below 100% funded on an actuarial basis as of June 30, 2021), and a 5-year smoothing method for recognizing investment gains and losses in the actuarial value of assets.

For the past several years, the Board has followed its current funding policy and employers have made their contributions to the plan. Therefore, if past practice is continued, the appropriations will be sufficient to allow the Fund to remain fully funded. As a result, it is presumed that the projected plan assets will be sufficient to cover the future benefit payments for current members and a detailed projection of plan assets and cash flows has not been prepared.



Discount Rate Sensitivity

	1% Decrease 5.25%	Current Rate 6.25%	1% Increase 7.25%
Net Pension Liability	\$868,860,771	(\$469,792,031)	(\$1,549,428,127)

Classes of Plan Members Covered

The June 30, 2021 valuation was performed using census data provided by INPRS as of June 30, 2020. Standard actuarial techniques were used to roll forward the total pension liability computed as of June 30, 2020 to the June 30, 2021 measurement date using actual benefit payments during that period of time.

Number as of June 30, 2020				
1. Currently Receiving Benefits:				
Retired Members, Disabled Members, and Beneficiaries	8,287			
2. Inactive Members Entitled To But Not Yet Receiving Benefits	6,827			
3. Inactive Non-vested Members Entitled to a Refund of Member Contributions	0			
4. Active Members	59,866			
Total Covered Plan Members: (1)+(2)+(3)+(4)	74,980			

Money-Weighted Rate of Return

The money-weighted rate of return equals investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. For the fiscal year ending June 30, 2021, the money-weighted return on the plan assets is 25.5%.

Components of Net Pension Liability

As of June 30, 2021						
Total Pension Liability Fiduciary Net Position	\$	7,517,703,347 7,987,495,378				
Net Pension Liability	\$	(469,792,031)				
Ratio of Fiduciary Net Position to Total Pension Liability		106.25%				



GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION SCHEDULE OF CHANGES IN THE TOTAL PENSION LIABILITY AND PLAN FIDUCIARY NET POSITION

Fiscal Year Ending June 30	2017	2018	2019	2020	2021
Total Pension Liability					
Total Pension Liability - beginning	\$6,391,750,065	\$6,914,237,041	\$5,563,263,694	\$5,980,426,336	\$6,403,252,089
DC Account Balances - beginning 1	1,217,432,610	1,378,142,685	0	0	0
DB Pension Liability - beginning	\$5,174,317,455	\$5,536,094,356	\$5,563,263,694	\$5,980,426,336	\$6,403,252,089
Service Cost (SC), beginning-of-year	168,650,636	182,558,143	180,559,476	183,632,094	190,036,960
Interest Cost, including interest on SC	357,392,165	382,297,585	383,383,638	411,329,073	439,928,627
Experience (Gains)/Losses	46,459,899	(142,274,764)	(21,587,947)	(31,433,009)	96,922,883
Assumption Changes	(115,505,653)	(285,442,477)	0	(113,645)	536,184,338
Plan Amendments	1,352,763	0	2,938,618	0	3,034,254
DC Annuitizations	8,503,495	6,503,849	0	0	0
Actual Benefit Payments	(109,334,779)	(122,239,791)	(132,572,511)	(143,371,247)	(155,348,220)
Member Reassignments	4,258,375	5,602,016	4,293,211	2,678,802	3,091,716
Service Purchases	0	164,777	148,157	103,685	600,700
Net Change in Total Pension Liability	361,776,901	27,169,338	417,162,642	422,825,753	1,114,451,258
DB Pension Liability - ending	\$5,536,094,356	\$5,563,263,694	\$5,980,426,336	\$6,403,252,089	\$7,517,703,347
DC Account Balances - ending 1	1,378,142,685	0	0	0	0
(a) Total Pension Liability - ending	\$6,914,237,041	\$5,563,263,694	\$5,980,426,336	\$6,403,252,089	\$7,517,703,347
Plan Fiduciary Net Position					
Plan Fiduciary Net Position – beginning	\$5,611,229,693	\$6,252,040,308	\$5,452,351,707	\$6,124,085,498	\$6,325,311,322
DC Account Balances - beginning 1	1,217,432,610	1,378,142,685	0	0	0
DB Plan Fiduciary Net Position – beginning	\$4,393,797,083	\$4,873,897,623	\$5,452,351,707	\$6,124,085,498	\$6,325,311,322
Contributions – employer	227,206,663	235,819,031	393,172,165	188,789,351	202,488,745
Contributions – non-employer	0	0	0	0	0
Contributions – member	57,709	129,780	127,304	103,685	464,713
Net investment income	354,926,957	457,707,449	411,146,841	158,071,621	1,616,453,719
Actual benefit payments	(109,334,779)	(122,239,791)	(132,572,511)	(143,371,247)	(155,348,220)
Net member reassignments	4,258,236	5,602,016	4,293,211	2,678,802	3,091,716
DC Annuitizations	8,504,000	6,503,849	0	0	0
Administrative expense	(5,552,446)	(5,208,400)	(5,037,962)	(5,089,388)	(4,966,317)
Other	34,200	140,150	604,743	43,000	(300)
Net change in Plan Fiduciary Net Position	480,100,540	578,454,084	671,733,791	201,225,824	1,662,184,056
DB Plan Fiduciary Net Position – ending	\$4,873,897,623	\$5,452,351,707	\$6,124,085,498	\$6,325,311,322	\$7,987,495,378
DC Account Balances - ending 1	1,378,142,685	0	0_	0	0
(b) Plan Fiduciary Net Position - ending	\$6,252,040,308	\$5,452,351,707	\$6,124,085,498	\$6,325,311,322	\$7,987,495,378
Net Pension Liability - ending, (a) - (b)	\$662,196,733	\$110,911,987	(\$143,659,162)	\$77,940,767	(\$469,792,031)

¹ Effective January 1, 2018, DC account balances are handled by a third party annuity provider and are treated as a separate defined contribution plan. Information was provided prospectively from June 30, 2013 for GASB No. 67 and GASB No. 68 purposes. Results prior to 2018 were produced by the prior actuary.



GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION SCHEDULE OF CHANGES IN THE TOTAL PENSION LIABILITY AND PLAN FIDUCIARY NET POSITION (continued)

Fiscal Year Ending June 30	2013	2014	2015	2016
Total Pension Liability				
Total Pension Liability - beginning	\$4,338,309,018	\$4,748,148,931	\$5,236,993,169	\$5,905,691,033
DC Account Balances - beginning 1	899,338,904	990,704,762	1,120,728,729	1,170,914,523
DB Pension Liability - beginning	\$3,438,970,114	\$3,757,444,169	\$4,116,264,440	\$4,734,776,510
Service Cost (SC), beginning-of-year	147,336,605	155,314,388	170,892,424	167,836,193
Interest Cost, including interest on SC	240,281,897	262,263,149	287,264,315	328,017,487
Experience (Gains)/Losses	(15,994,636)	504,077	(40,857,253)	29,876,020
Assumption Changes	Ó	0	263,991,050	0
Plan Amendments	0	(4,504,201)	0	0
DC Annuitizations	11,621,194	15,151,081	22,574,841	8,931,954
Actual Benefit Payments	(68,792,905)	(77,253,362)	(90,266,941)	(99,506,626)
Member Reassignments	0	6,922,378	4,889,464	4,370,023
Service Purchases	4,021,900	422,761	24,170	15,894
Net Change in Total Pension Liability	318,474,055	358,820,271	618,512,070	439,540,945
DB Pension Liability - ending	\$3,757,444,169	\$4,116,264,440	\$4,734,776,510	\$5,174,317,455
DC Account Balances - ending 1	990,704,762	1,120,728,729	1,170,914,523	1,217,432,610
(a) Total Pension Liability - ending	\$4,748,148,931	\$5,236,993,169	\$5,905,691,033	\$6,391,750,065
Plan Fiduciary Net Position				
Plan Fiduciary Net Position – beginning	\$4,018,148,904	\$4,433,677,345	\$5,189,442,330	\$5,379,113,041
DC Account Balances - beginning 1	899,338,904	990,704,762	1,120,728,729	1,170,914,523
DB Plan Fiduciary Net Position – beginning	\$3,118,810,000	\$3,442,972,583	\$4,068,713,601	\$4,208,198,518
Contributions – employer	180,714,000	194,750,861	205,763,142	215,625,986
Contributions – non-employer	0	0	0	0
Contributions – member	0	0	0	43,175
Net investment income	207,098,438	492,856,485	2,684,489	61,722,129
Actual benefit payments	(68,793,300)	(77,253,362)	(90,266,941)	(99,506,625)
Net member reassignments	0	6,922,371	4,890,290	4,369,512
DC Annuitizations	11,621,100	15,151,500	22,575,000	8,931,800
Administrative expense	(6,482,000)	(6,707,587)	(6,185,233)	(5,603,306)
Other	4,345	20,750	24,170	15,894
Net change in Plan Fiduciary Net Position	324,162,583	625,741,018	139,484,917	185,598,565
DB Plan Fiduciary Net Position – ending	\$3,442,972,583	\$4,068,713,601	\$4,208,198,518	\$4,393,797,083
DC Account Balances - ending 1	990,704,762	1,120,728,729	1,170,914,523	1,217,432,610
(b) Plan Fiduciary Net Position - ending	\$4,433,677,345	\$5,189,442,330	\$5,379,113,041	\$5,611,229,693
Net Pension Liability - ending, (a) - (b)	\$314,471,586	\$47,550,839	\$526,577,992	\$780,520,372

¹ Effective January 1, 2018, DC account balances are handled by a third party annuity provider and are treated as a separate defined contribution plan. Information was provided prospectively from June 30, 2013 for GASB No. 67 and GASB No. 68 purposes. Results prior to 2018 were produced by the prior actuary.



GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION SCHEDULE OF THE NET PENSION LIABILITY

Fiscal Year Ending June 30	2017	2018	2019	2020	2021
Total Pension Liability	\$6,914,237,041	\$5,563,263,694	\$5,980,426,336	\$6,403,252,089	\$7,517,703,347
Plan Fiduciary Net Position	6,252,040,308	5,452,351,707	6,124,085,498	6,325,311,322	7,987,495,378
Net Pension Liability	\$662,196,733	\$110,911,987	(\$143,659,162)	\$77,940,767	(\$469,792,031)
Ratio of Plan Fiduciary Net Position to Total Pension Liability	90.42%	98.01%	102.40%	98.78%	106.25%
Covered-employee payroll ¹	\$3,020,463,178	\$3,129,070,354	\$3,257,917,777	\$3,465,727,587	\$3,634,648,638
Net Pension Liability as a percentage of covered-employee payroll	21.92%	3.54%	-4.41%	2.25%	-12.93%
Fiscal Year Ending June 30		2013	2014	2015	2016
Total Pension Liability		\$4,748,148,931	\$5,236,993,169	\$5,905,691,033	\$6,391,750,065
Plan Fiduciary Net Position		4,433,677,345	5,189,442,330	5,379,113,041	5,611,229,693
Net Pension Liability		\$314,471,586	\$47,550,839	\$526,577,992	\$780,520,372
Ratio of Plan Fiduciary Net Position to Total Pension Liability		93.38%	99.09%	91.08%	87.79%
Covered-employee payroll ¹		\$2,442,496,000	\$2,598,115,000	\$2,742,186,608	\$2,881,397,273
Net Pension Liability as a percentage of covered-employee payroll		12.88%	1.83%	19.20%	27.09%

¹ As provided by INPRS.

Information was provided prospectively from June 30, 2013 for GASB No. 67 and GASB No. 68 purposes. Results prior to 2018 were produced by the prior actuary.



GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ending June 30	2017	2018	2019	2020	2021
Actuarially Determined Contribution ¹ Actual employer contributions ² Annual contribution (deficiency) / excess	\$198,444,431 <u>\$227,206,663</u> \$28,762,232	\$210,586,435 <u>\$235,675,239</u> \$25,088,804	\$226,099,494 <u>\$393,151,312</u> \$167,051,818	\$162,035,175 <u>\$188,789,351</u> \$26,754,176	\$158,762,674 \$202,352,758 \$43,590,084
Covered-employee payroll ³ Actual contributions as a percentage of covered-employee payroll	\$3,020,463,178 7.52%	\$3,129,070,354 7.53%	\$3,257,917,777 12.07%	\$3,465,727,587 5.45%	\$3,634,648,638 5.57%
Fiscal Year Ending June 30		2013	2014	2015	2016
Actuarially Determined Contribution ¹ Actual employer contributions ² Annual contribution (deficiency) / excess		\$164,400,000 <u>\$180,714,567</u> \$16,314,567	\$177,711,000 \$194,750,861 \$17,039,861	\$178,260,000 \$205,525,842 \$27,265,842	\$180,375,469 \$215,625,986 \$35,250,517
Covered-employee payroll ³ Actual contributions as a percentage of covered-employee payroll		\$2,442,496,000 7.40%	\$2,598,115,000 7.50%	\$2,742,186,608 7.49%	\$2,881,397,273 7.48%

¹ The employer rates were applied to the actual covered employee payroll for the fiscal year to determine the contribution amount.

Information was provided prospectively from June 30, 2013 for GASB No. 67 and GASB No. 68 purposes. Results prior to 2018 were produced by the prior actuary.

The actuarially determined amortization and normal cost rates were developed in the actuarial report completed one year prior to the fiscal year.

The surcharge rate uses the valuation completed two years ago for July-December and one year ago for January-June.

² Excludes service purchases paid for by the employer of \$135,987.

³ As provided by INPRS.



GASB NO. 67 AND GASB NO. 68: REQUIRED SUPPLEMENTAL INFORMATION SCHEDULE OF MONEY-WEIGHTED RETURNS

For Fiscal Year Ending June 30	Money-Weighted Return
2021	25.5%
2020	2.6%
2019	7.5%
2018	9.3%
2017	8.1%
2016	1.0%
2015	0.6%
2014	12.7%
2013	5.1%

Information was provided prospectively from June 30, 2013 for GASB No. 67 and GASB No. 68 purposes. Returns provided by INPRS.





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A glossary of actuarial terms used in the valuation report.	



MEMBER DATA RECONCILIATION For June 30, 2020 Data used in the June 30, 2021 Valuation

	Active Members	Inactive Vested	Inactive Deceased	Disabled	Retired	Beneficiary	Total
1. As of June 30, 2019	58,450	6,599	10	135	7,154	307	72,655
2. Data Adjustments							
New Participants	4,748	0	0	0	0	0	4,748
Rehires	551	(551)	0	0	0	0	0
Terminations:							
Not Vested	(2,359)	0	0	0	0	0	(2,359)
Deferred Vested	(1,144)	1,144	0	0	0	0	0
Disability	(7)	0	0	7	0	0	0
Retirements	(353)	(367)	0	0	720	0	0
Refund / Benefits Ended	0	0	(1)	0	0	(2)	(3)
Transfer	(4)	(32)	0	0	0	0	(36)
Deaths:							
With Beneficiary	(5)	(2)	0	(3)	(33)	43	0
Without Beneficiary	(9)	(12)	0	(3)	(57)	(7)	(88)
Entitled to Future Pension Benefit	(2)	0	2	0	0	0	0
Data Corrections ¹	0	37	0	14	4	8	63
Net Change	1,416	217	1	15	634	42	2,325
3. As of June 30, 2020 ²	59,866	6,816	11	150	7,788	349	74,980

¹ Data corrections reflect the movement between Disabled and Retired status, along with other movements in the INPRS data.

² Valuation results as of June 30, 2021 were calculated using June 30, 2020 census data, adjusted for certain activity before the valuation date. Headcounts may include multiple records for individuals, such as members with multiple periods of service.



SUMMARY OF MEMBERSHIP DATA

		Combined TRF Plans				1996 Account		
Valuation Date		June 30, 2020		June 30, 2021		June 30, 2021		
Date of Membership Data ¹		June 30, 2019		June 30, 2020		June 30, 2020		
ACTIVE MEMBERS								
Number of Active Members		67,788		68,241		59,866		
Annual Membership Data Salary ²	\$	3,870,822,192	\$	4,014,573,154	\$	3,388,831,431		
Anticipated Payroll for Next Fiscal Year	\$	4,179,833,109	\$	4,354,360,329	\$	3,781,121,764		
Active Member Averages								
Age		43.0		43.1		41.2		
Service		13.6		13.7		11.5		
Annual Membership Data Salary	\$	57,102	\$	58,829	\$	56,607		
INACTIVE MEMBERS								
Number of Inactive Members		8,881		8,791		6,827		
Inactive Member Averages								
Age		51.7		51.6		49.4		
Service		14.5		14.1		12.9		
RETIREES, DISABLEDS, AND BENEFIC	CIA	RIES						
Number of Members								
Retired		55,163		55,701		7,788		
Disabled		237		260		150		
Beneficiaries		5,611		5,863		349		
Total		61,011		61,824		8,287		
Annual Benefits								
Retired	\$	1,186,691,022	\$	1,204,475,617	\$	137,943,805		
Disabled		2,374,974		2,721,880		1,327,375		
Beneficiaries		83,708,657		89,159,775		4,418,843		
Total	\$	1,272,774,653	\$	1,296,357,272	\$	143,690,023		
Annual Benefits								
Pension	\$	1,138,731,406	\$	1,165,138,525	\$	132,168,577		
DC Plan Annuities		134,043,247		131,218,747		11,521,446		
Total	\$	1,272,774,653	\$	1,296,357,272	\$	143,690,023		

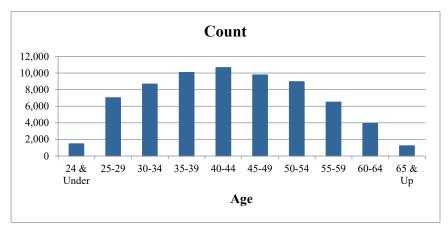
¹ The valuation results were calculated using the prior year's census data and were adjusted for certain activity during fiscal year.

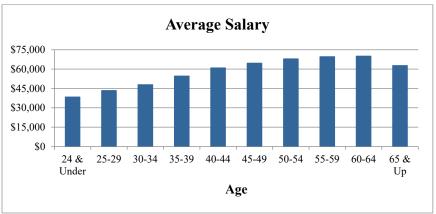
² The 2020 amounts include 68 records from the 1996 Account with less than a year of service who are missing a salary. Their salaries were defaulted to the average salary of \$54,561. The 2021 amounts include 30 records where salaries were defaulted to the average salary of \$56,607.



ACTIVE MEMBERS¹ As of June 30, 2020 for the June 30, 2021 Valuation Combined TRF Plans

_	Сот	unt of Member	rs	FY 2020 A	nnual Membership	Data Salary
<u>Age</u>	Male	<u>Female</u>	<u>Total</u>	Male	<u>Female</u>	<u>Total</u>
24 & Under	217	1,243	1,460	\$ 8,364,634	\$ 47,524,589	\$ 55,889,223
25-29	1,532	5,487	7,019	68,327,398	236,014,511	304,341,909
30-34	2,212	6,459	8,671	113,765,262	301,264,612	415,029,874
35-39	2,656	7,414	10,070	158,697,452	390,717,260	549,414,712
40-44	2,886	7,768	10,654	192,684,911	455,619,675	648,304,586
45-49	2,611	7,156	9,767	188,765,627	441,643,677	630,409,304
50-54	2,335	6,626	8,961	175,372,571	433,143,716	608,516,287
55-59	1,702	4,787	6,489	130,077,967	321,068,481	451,146,448
60-64	1,001	2,925	3,926	76,453,967	198,379,382	274,833,349
65 & Up	<u>368</u>	<u>856</u>	<u>1,224</u>	23,901,885	52,785,577	76,687,462
Total	17.520	50.721	68.241	\$ 1.136.411.674	\$ 2.878.161.480	\$ 4.014.573.154





¹ Includes 30 records from the 1996 Account with less than a year of service who are missing a salary. Their salaries were defaulted to the average salary of \$56,607.



AGE AND SERVICE DISTRIBUTION¹ As of June 30, 2020 for the June 30, 2021 Valuation Combined TRF Plans

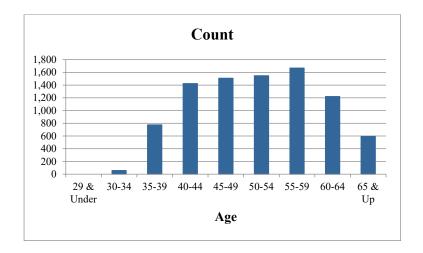
Age		0.4	5.0	10.14	15.10	20.24		25.20	20.24	024		T-4-1
		0-4	5-9	10-14	15-19	20-24	<u> </u>	25-29	30-34	Over 34	<u> </u>	Total
24 &	Number	1,459	1	0	0	0		0	0	0		1,460
Under	Total Salary	\$ 55,846,979	\$ 42,244	\$ 0	\$ 0	\$ 0	\$	0	\$ 0	\$ 0	\$	55,889,223
	Average Sal.	\$ 38,278	\$ 42,244	\$ 0	\$ 0	\$ 0	\$	0	\$ 0	\$ 0	\$	38,280
25-29	Number	5,339	1,679	1	0	0		0	0	0		7,019
	Total Salary	\$ 226,406,030	\$ 77,883,153	\$ 52,726	\$ 0	\$ 0	\$	0	\$ 0	\$ 0	\$	304,341,909
	Average Sal.	\$ 42,406	\$ 46,387	\$ 52,726	\$ 0	\$ 0	\$	0	\$ 0	\$ 0	\$	43,360
30-34	Number	2,213	5,504	953	1	0		0	0	0		8,671
	Total Salary	\$ 95,302,347	\$ 266,580,917	\$ 53,091,367	\$ 55,243	\$ 0	\$	0	\$ 0	\$ 0	\$	415,029,874
	Average Sal.	\$ 43,065	\$ 48,434	\$ 55,710	\$ 55,243	\$ 0	\$	0	\$ 0	\$ 0	\$	47,864
35-39	Number	1,618	2,627	4,464	1,359	2		0	0	0		10,070
	Total Salary	\$ 70,400,713	\$ 133,183,569	\$ 257,917,038	\$ 87,812,350	\$ 101,042	\$	0	\$ 0	\$ 0	\$	549,414,712
	Average Sal.	\$ 43,511	\$ 50,698	\$ 57,777	\$ 64,615	\$ 50,521	\$	0	\$ 0	\$ 0	\$	54,560
40-44	Number	1,307	1,690	1,941	4,387	1,325		4	0	0		10,654
	Total Salary	\$ 58,012,445	\$ 86,473,895	\$ 113,839,754	\$ 293,266,332	\$ 96,414,771	\$	297,389	\$ 0	\$ 0	\$	648,304,586
	Average Sal.	\$ 44,386	\$ 51,168	\$ 58,650	\$ 66,849	\$ 72,766	\$	74,347	\$ 0	\$ 0	\$	60,851
45-49	Number	1,027	1,273	1,213	1,733	3,702		818	1	0		9,767
	Total Salary	\$ 45,828,818	\$ 64,249,020	\$ 69,932,629	\$ 112,620,702	\$ 271,835,853	\$	65,824,736	\$ 117,546	\$ 0	\$	630,409,304
	Average Sal.	\$ 44,624	\$ 50,471	\$ 57,653	\$ 64,986	\$ 73,429	\$	80,470	\$ 117,546	\$ 0	\$	64,545
50-54	Number	722	920	953	1,203	1,802		2,662	694	5		8,961
	Total Salary	\$ 32,438,538	\$ 47,470,239	\$ 54,039,157	\$ 77,997,368	\$ 131,615,019	\$	208,398,243	\$ 56,227,760	\$ 329,963	\$	608,516,287
	Average Sal.	\$ 44,929	\$ 51,598	\$ 56,704	\$ 64,836	\$ 73,038	\$	78,286	\$ 81,020	\$ 65,993	\$	67,907
55-59	Number	403	468	608	788	951		996	1,744	531		6,489
	Total Salary	\$ 16,829,782	\$ 23,820,249	\$ 34,244,442	\$ 50,473,395	\$ 67,465,167	\$	76,170,624	\$ 139,243,793	\$ 42,898,996	\$	451,146,448
	Average Sal.	\$ 41,761	\$ 50,898	\$ 56,323	\$ 64,053	\$ 70,941	\$	76,477	\$ 79,842	\$ 80,789	\$	69,525
60-64	Number	234	259	343	435	600		484	499	1,072		3,926
	Total Salary	\$ 9,651,074	\$ 13,087,565	\$ 18,964,394	\$ 27,828,617	\$ 41,757,732	\$	36,323,732	\$ 39,818,084	\$ 87,402,151	\$	274,833,349
	Average Sal.	\$ 41,244	\$ 50,531	\$ 55,290	\$ 63,974	\$ 69,596	\$	75,049	\$ 79,796	\$ 81,532	\$	70,003
65 &	Number	139	126	118	135	135		101	97	373		1,224
Up	Total Salary	\$ 3,347,145	\$ 4,356,090	\$ 5,671,377	\$ 8,341,585	\$ 9,336,235	\$	7,642,602	\$ 7,508,021	\$ 30,484,407	\$	76,687,462
	Average Sal.	\$ 24,080	\$ 34,572	\$ 48,063	\$ 61,790	\$ 69,157	\$	75,669	\$ 77,402	\$ 81,728	\$	62,653
Total	Number	14,461	14,547	10,594	10,041	8,517		5,065	3,035	1,981		68,241
	Total Salary	\$ 614,063,871	\$ 717,146,941	\$ 607,752,884	\$ 658,395,592	\$ 618,525,819	\$	394,657,326	\$ 242,915,204	\$ 161,115,517	\$	4,014,573,154
	Average Sal.	\$ 42,463	\$ 49,299	\$ 57,368	\$ 65,571	\$ 72,622	\$	77,919	\$ 80,038	\$ 81,330	\$	58,829

¹ Includes 30 records from the 1996 Account with less than a year of service who are missing a salary. Their salaries were defaulted to the average salary of \$56,607.



INACTIVE VESTED MEMBERS As of June 30, 2020 for the June 30, 2021 Valuation Combined TRF Plans

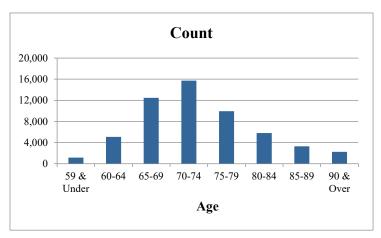
_	Count of Members					
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>			
29 & Under	0	0	0			
30-34	13	44	57			
35-39	186	589	775			
40-44	380	1,043	1,423			
45-49	477	1,031	1,508			
50-54	458	1,089	1,547			
55-59	370	1,298	1,668			
60-64	252	968	1,220			
65 & Up	<u>134</u>	<u>459</u>	<u>593</u>			
Total	2,270	6,521	8,791			

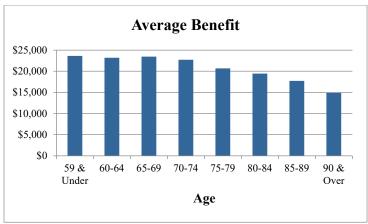




RETIRED MEMBERS As of June 30, 2020 for the June 30, 2021 Valuation Combined TRF Plans

_	Cot	ınt of Membe	ers	Annual Benefits			
<u>Age</u>	Male	<u>Female</u>	<u>Total</u>	Male	<u>Female</u>	<u>Total</u>	
59 & Under	327	827	1,154	\$ 7,888,326	\$ 19,374,254	\$ 27,262,580	
60-64	1,275	3,802	5,077	31,989,784	85,703,117	117,692,901	
65-69	3,166	9,298	12,464	82,511,060	209,692,431	292,203,491	
70-74	4,668	11,051	15,719	119,747,891	237,421,317	357,169,208	
75-79	3,552	6,383	9,935	83,772,830	121,640,271	205,413,101	
80-84	2,208	3,600	5,808	49,113,675	63,752,748	112,866,423	
85-89	1,281	2,018	3,299	26,465,713	32,008,496	58,474,209	
90 & Over	<u>682</u>	<u>1,563</u>	<u>2,245</u>	12,774,944	20,618,760	33,393,704	
Total	17,159	38,542	55,701	\$ 414,264,223	\$ 790,211,394	\$ 1,204,475,617	

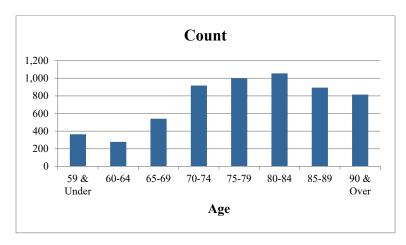


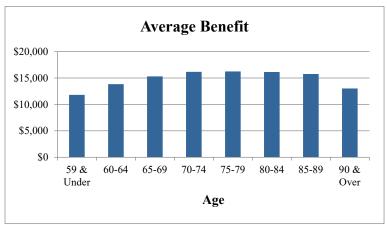




BENEFICIARIES RECEIVING BENEFITS As of June 30, 2020 for the June 30, 2021 Valuation Combined TRF Plans

_	Cor	unt of Member	rs		Annual Benefits	
<u>Age</u>	Male	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
59 & Under	154	210	364	\$ 1,698,807	\$ 2,598,580	\$ 4,297,387
60-64	112	166	278	1,453,675	2,392,053	3,845,728
65-69	218	322	540	2,845,352	5,418,042	8,263,394
70-74	328	589	917	4,863,864	9,950,273	14,814,137
75-79	287	713	1,000	3,963,553	12,276,299	16,239,852
80-84	229	826	1,055	3,101,400	13,917,268	17,018,668
85-89	170	724	894	2,082,634	11,996,160	14,078,794
90 & Over	<u>105</u>	<u>710</u>	<u>815</u>	<u>984,649</u>	<u>9,617,166</u>	10,601,815
Total	1,603	4,260	5,863	\$ 20,993,934	\$ 68,165,841	\$ 89,159,775

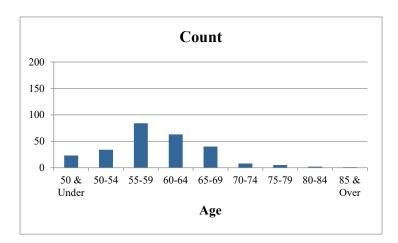


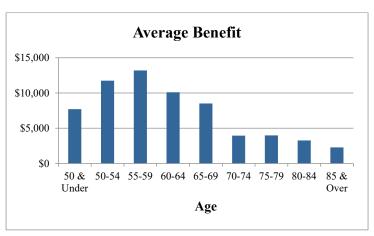




DISABLED MEMBERS As of June 30, 2020 for the June 30, 2021 Valuation Combined TRF Plans

<u>-</u>	Co	unt of Member	rs	Annual Benefits			
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	Male	<u>Female</u>	<u>Total</u>	
50 & Under	2	21	23	\$ 14,259	\$ 162,979	\$ 177,238	
50-54	9	25	34	91,762	307,535	399,297	
55-59	21	63	84	298,275	810,447	1,108,722	
60-64	15	48	63	150,840	485,396	636,236	
65-69	8	32	40	97,280	242,857	340,137	
70-74	2	6	8	9,893	21,653	31,546	
75-79	1	4	5	3,637	16,263	19,900	
80-84	0	2	2	0	6,530	6,530	
85 & Over	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>2,274</u>	<u>2,274</u>	
Total	58	202	260	\$ 665,946	\$ 2,055,934	\$ 2,721,880	







MEMBERS AND BENEFICIARIES RECEIVING BENEFITS As of June 30, 2020 for the June 30, 2021 Valuation 1996 Account

Schedule of Average Benefit Payments 1,2

Years of Credited Service < 10 15 - 19 20 - 24 25 - 29 30 +For the Year Ended June 30, 2021 10 - 14 Total Average Monthly Defined Benefit \$492 \$800 \$1,178 \$1,585 \$2,336 \$1,329 \$158 Average Monthly DC Annuity³ \$70 \$495 \$744 \$152 \$242 \$337 \$392 Average Final Average Salary⁴ \$68,661 \$77,724 \$38,226 \$46,721 \$56,490 \$63,464 \$63,610 Number of Benefit Recipients 1,046 2,139 1,173 2,146 8,287 182 1,601

¹ Calculated using the prior year census data, adjusted for certain activity during the fiscal year.

² Members with less than 10 years of service are primarily members receiving a disability benefit.

³ This represents those retirees who elected to receive their DC account as a supplemental monthly payment in addition to the monthly Defined Benefit payment.

⁴ Excludes the 99 in-pay members who are missing a final average salary in the data.



MEMBERS AND BENEFICIARIES RECEIVING BENEFITS As of June 30, 2020 for the June 30, 2021 Valuation 1996 Account

Schedule of Benefit Recipients by Type of Benefit Option ^{1,2}

Number of Recipients by Benefit Option

			•	· · · · · · · · · · · · · · · · · · ·				
				Joint with				
Amount of			Joint with	Two-	Joint with			
Monthly	5-Year		100%	Thirds	One-Half			Total
Benefit (in	Certain &	Straight	Survivor	Survivor	Survivor			Benefit
dollars)	Life	Life	Benefits	Benefits	Benefits	Survivors	Disability	Recipients
1 - 500	279	250	178	36	42	90	55	930
501 - 1,000	628	584	509	116	193	115	62	2,207
1,001 - 1,500	487	577	475	139	201	58	24	1,961
1,501 - 2,000	336	362	348	107	149	41	5	1,348
2,001 - 2,500	192	198	244	65	120	26	2	847
2,501 - 3,000	66	128	132	44	51	10	0	431
Over 3,000	106	124	178	66	78_	9	2	563
Total	2,094	2,223	2,064	573	834	349	150	8,287

¹ Calculated using the prior year census data, adjusted for certain activity during the fiscal year.

² Members who elected Social Security Integration were included in their selected benefit option of either 5-Year Certain & Life, Straight Life, Modified Cash Refund Plus 5-Year Certain & Life, Joint With 100% Survivor Benefits, Joint With Two-Thirds Survivor Benefits, or Joint With One-Half Survivor Benefits.



MEMBERS AND BENEFICIARIES RECEIVING BENEFITS As of June 30, 2020 for the June 30, 2021 Valuation 1996 Account

Schedule of Retirees and Beneficiaries 1

	Added	to Rolls	Removed	from Rolls	Rolls - Er	Rolls - End of Year			
	Number	Annual Benefits²	Number	Annual Benefits²	Number	Total Annual Benefits²	Percent Change In Total Annual Benefits	Average Annual Benefit	Percent Change In Average Annual Benefit
2021 ³	760	\$12,813	69	\$977	8,287	\$143,690	8.9%	\$17,339	(0.2%)
2020 ³	619	10,236	64	927	7,596	132,004	7.4	17,378	(0.5)
2019 ³	798	13,285	46	566	7,041	122,935	11.3	17,460	(0.6)
2018 ³	710	9,562	217	1,002	6,289	110,423	8.1	17,558	(0.4)
2017 ³	855	12,106	36	564	5,796	102,178	12.1	17,629	(3.8)
2016 ³	858	16,075	17	305	4,977	91,160	20.4	18,316	0.1
2015 ³	499	9,101	28	353	4,136	75,714	12.7	18,306	(0.1)
2014 ³	0	12,216	0	251	3,665	67,169	0.0	18,327	0.0
2013	712	12,216	18	251	3,665	67,169	21.1	18,327	(1.8)
2012	433	8,132	16	236	2,971	55,475	15.8	18,672	(0.4)

¹ Dollar amounts are in thousands except for the average annual benefit.

² Annual benefits includes members selecting an annuity for their DC account. End of year annual benefits are not equal to prior end of year annual benefits plus additions less removals due to beneficiary benefit changes, data changes, and COLA increases.

³ The valuation results were calculated using the prior year census data, adjusted for certain activity during the fiscal year.





Definitions

Fiscal year Twelve month period ending June 30.

Participation Any full-time Indiana teachers in a public school corporation,

certain INPRS employees, and some employees in charter schools, innovation schools, turnaround schools and public

universities who were hired after June 30, 1995.

Average annual compensation Average of highest five years of compensation. Years do not

need to be consecutive.

Member contributions All Fund members are required by state law to contribute 3%

of salary contributions to their Defined Contribution Account. These 3% contributions are generally "picked up" by the employer and contributed on a pre-tax basis on behalf of the employee. Extra voluntary contributions by the member are also possible, but on a post-tax basis. At retirement, there are six alternatives for receiving the proceeds of this account, including lump sums, full and partial rollovers, full and partial annuitization of the balance,

and deferred distribution.

Minimum pension benefit The minimum pension benefit paid to a regularly retired

member receiving an unreduced pension benefit is \$185 per

month effective July 1, 2017 per SEA 46.

Eligibility for Benefits

Deferred vested Ten years of service. Benefit commences at regular or early

retirement eligibility.

Disability retirement

Regular disability benefit Five years of service.

Disability retirement benefit Five years of service and determined to be disabled by the

Social Security Administration. Annual verification of Social

Security disability is required.

Early retirement Age 50 with 15 years of service.

Normal retirement Age 65 with ten years of service, or age 60 with 15 years of

service, or if age is at least 55 and the sum of age plus credited

service is at least 85.

Pre-retirement death 10 years of service. Spouse to whom member had been

married for two or more years is automatically eligible, or a

dependent may be designated as beneficiary.



Monthly Benefits Payable

Normal retirement State pension equal to total service times 1.1% of Average

Annual Compensation. Beginning July 1, 2017, the minimum

pension benefit is \$185 per month.

Early retirement State pension is computed as regular retirement benefit, but

reduced for each month between age at early retirement and attainment of age 65. The age reduction factor is calculated

as the sum of the following:

• 1/10 of 1% for each month from age 60 to 65.

• 5/12 of 1% for each month from age at early

retirement to 60.

Deferred retirement Computed as a regular retirement benefit with state pension

based on service and Average Annual Compensation at

termination.

Disability

Regular disability benefit \$125 per month plus \$5 per month for each year of service

credit over five years.

Disability retirement benefit Computed as a regular retirement benefit using creditable

service to the date of disability and without reduction for early retirement. The minimum benefit is \$180 per month.

Pre-retirement death The spouse or dependent beneficiary is entitled to receive the

monthly life benefit payable immediately under the assumption that the member retired on the later of age 50 or the date before the date of death and elected the joint and full survivor option. If eligible for normal retirement at death, the

minimum pension benefit is \$185 per month.

Cost-of-Living-Adjustments

The employer-funded monthly pension benefits for members in pay status are increased periodically to preserve purchasing

power that is diminished due to inflation. Such increases are not guaranteed by Statute and will only be provided by

legislative action.

A "13th check" was paid to each member in pay status during fiscal year 2018, 2019, 2020 and 2021. The amount of the

13th check varied based on the years of creditable service the

member had earned prior to retirement.

Legislation passed in the 2018 legislative session creates a funding mechanism to provide for future benefit increases or

13th checks. The INPRS Board has the authority to have



employers contribute up to 1% of member pay into the fund. Increases or payments are made upon passed legislation subject to the availability of funds to provide the benefit. Legislation passed in 2021 provided for a 1% increase effective January 1, 2022 and no increase through the remainder of the biennium.

Forms of payment

The normal form of benefit payment (Option A-1) is a single life annuity with a five-year certain period. There are five optional forms of payment available, as listed below. Additionally, members retiring between ages 50 and 62 may integrate their pension benefit with their Social Security benefit by choosing Social Security Integration (Option A-4) in conjunction with the normal form or any other optional form selected. Optional forms of payment are calculated on an actuarially equivalent basis.

Additional Forms of Payment

Option A-2: Straight Life benefit with no certain period

Option A-3: Modified Cash Refund Annuity (operates in conjunction with

the Defined Contribution Account)

Option B-1: 100% Survivorship

Option B-2: 66 2/3% Survivorship

Option B-3: 50% Survivorship

State law provides for actuarially-adjusted and re-calculated benefits based on a new optional form election in the event of

the death of the member's spouse after retirement.

Changes in Plan Provisions since the Prior Year

House Enrolled Act No. 1001 was passed in April 2021 and granted a 1.00% cost-of-living adjustment effective January 1, 2022 to be paid from the Supplemental Reserve Account. No supplemental benefits were granted for fiscal year 2023.



ACTUARIAL METHODS

1. Actuarial Cost Method

The actuarial cost method is Entry Age Normal - Level Percent of Payroll.

The normal cost is calculated separately for each active member and is equal to the level percentage of payroll needed as an annual contribution from entry age to retirement age to fund projected benefits. The actuarial accrued liability on any valuation date is the accumulated value of such normal costs from entry age to the valuation date.

For funding, gains and losses occurring from census experience different than assumed, assumption changes, and benefit changes are amortized over a 20-year period with level payments each year. A new gain or loss base is established each year based on the additional gain or loss during that year and that base is amortized over a new 20-year period. However, when the plan is at or above 100% funded (based on Actuarial Value of Assets), the past amortization bases are considered fully amortized and a single amortization base equal to the surplus is amortized over a 30-year period with level payments each year. The purpose of the method is to give a smooth progression of the costs from year to year and, at the same time, provide for an orderly funding of the unfunded liabilities.

For accounting, gains and losses occurring from census experience different than assumed and assumption changes are amortized into expense over the average expected future service of all plan participants. Gains and losses occurring from investment experience different than assumed are amortized into expense over a 5-year period. The effect of plan changes on the plan liability are fully recognized in expense in the year in which they occur.

Member census data as of June 30, 2020 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2020 and June 30, 2021. The valuation results from June 30, 2020 were rolled-forward to June 30, 2021 to reflect benefit accruals during the year less benefits paid.

2. COLA Surcharge

The COLA Surcharge is developed by determining the assets needed at the start of the next biennium to fund the post-retirement benefit increases anticipated to be granted in that biennium. This amount is divided by the present value of expected payroll over which the accumulations will occur.

3. Asset Valuation Method

Actuarial Value of Assets is equal to a five-year smoothing of gains and losses on the Market Value of Assets subject to a 20% corridor.





4. Anticipated Payroll

The Anticipated Payroll for the fiscal year beginning July 1, 2021 is equal to the actual payroll during the year ending June 30, 2021, increased with one year of salary scale.

5. Employer Contribution Rates

APPENDIX C – SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Based on the assumptions and methods previously described, an actuarially determined contribution rate is computed for each employer. The Board considers this information and has ultimate authority in setting the employer contribution rates.

Changes in Methods since the Prior Year

None.



ACTUARIAL ASSUMPTIONS

Valuation Date June 30, 2021

Economic Assumptions

1. Investment return 6.25% per year, compounded annually (net of administrative

and investment expenses)

2. Inflation 2.00% per year

3. Salary increase

Service	Wage Inflation	Merit	Salary Increase
0-1	2.65%	9.25%	11.90%
2	2.65%	4.25%	6.90%
3	2.65%	2.75%	5.40%
4-14	2.65%	1.75%	4.40%
15	2.65%	1.50%	4.15%
16	2.65%	1.25%	3.90%
17	2.65%	1.00%	3.65%
18	2.65%	0.75%	3.40%
19	2.65%	0.50%	3.15%
20	2.65%	0.25%	2.90%
21+	2.65%	0.00%	2.65%

4. Cost-of-Living Adjustment (COLA)

Members in pay were granted a 1.00% COLA effective January 1, 2022 for the next biennium. Thereafter, the following COLAs, compounded annually, were assumed:

0.4% beginning on January 1, 2024 0.5% beginning on January 1, 2034 0.6% beginning on January 1, 2039

Demographic Assumptions

1. Mortality

Pub-2010 Public Retirement Plans Mortality Tables (Amount-Weighted) with a fully generational projection of mortality improvements using SOA Scale MP-2019.

Healthy Employees – Teacher Employee table with a 1 year set forward for males and a 1 year set forward for females.

Retirees – Teacher Retiree table with a 1 year set forward for males and a 1 year set forward for females.

Beneficiaries – Contingent Survivor table with no set forward for males and a 2 year set forward for females.

Disableds – General Disabled table with a 140% load.



2. Disability

Age	Sample Rates
<=36	0.005%
40	0.009%
45	0.014%
50	0.034%
55	0.061%
56-65	0.070%
66+	0.000%

3. Retirement

Age	Eligible for Reduced Benefit	Eligible for Unreduced Benefit
50-53	2.0%	N/A
54	5.0%	N/A
55-56	5.0%	15%
57	6.5%	15%
58	8.0%	15%
59	12.0%	15%
60	N/A	15%
61	N/A	20%
62	N/A	25%
63	N/A	30%
64	N/A	35%
65-74	N/A	40%
75+	N/A	100%

Active members: 30% commence benefit immediately (reduced for early retirement, if applicable). 70% defer to earliest unreduced retirement date.

Inactive vested members are assumed to commence their retirement benefit at their earliest normal retirement date.



4. Termination

Service	Male	Female
0	15.00%	12.50%
1	13.00%	11.50%
2	11.00%	10.50%
3	9.00%	9.50%
4	8.00%	8.50%
5	7.00%	7.50%
6	6.00%	6.50%
7	5.00%	5.50%
8	4.50%	5.00%
9	4.00%	4.50%
10	3.75%	4.00%
11	3.50%	3.50%
12	3.25%	3.25%
13	3.00%	3.00%
14	2.75%	2.75%
15	2.50%	2.50%
16+	2.25%	2.25%

Other Assumptions

1. Form of payment

100% of members are assumed to elect the normal form of benefit payment (Option A-1), a single life annuity with a five-year certain period.

2. Marital status

a. Percent married

80% of male members and 75% of female members are assumed to be married and or to have a dependent beneficiary.

b. Spouse's age

Male members are assumed to be three (3) years older than their spouses and female members are assumed to be two (2) years younger than their spouses.

3. Decrement timing

Decrements are assumed to occur at the beginning of the year.

4. Miscellaneous adjustments

For active members, the Average Annual Compensation was increased by \$200 for additional wages received upon termination, such as severance or unused sick leave.



Changes in Assumptions since the Prior Year

As a result of the Asset-Liability work completed and discussed at the May 7, 2021 Board meeting, the Board made portfolio revisions and adopted a new set of economic assumptions for the June 30, 2021 actuarial valuations as follows:

- The investment return assumption was lowered from 6.75% (as of June 30, 2020) to 6.25%.
- Price inflation was lowered from 2.25% (as of June 30, 2020) to 2.00%.
- General wage inflation was lowered from 2.75% (as of June 30, 2020) to 2.65%.

Legislation granted a 1.00% cost-of-living adjustment effective January 1, 2022 to be paid from the Supplemental Reserve Account. No supplemental benefits were granted for fiscal year 2023. This replaces the COLA assumption of 0.4% for Fiscal Years 2022 and 2023 but does not change the assumption for future years.

Data Adjustments

Active and retired member data is reported as of June 30. Member census data as of June 30, 2020 was used in the valuation and adjusted, where appropriate, to reflect changes between June 30, 2020 and June 30, 2021. Standard actuarial roll-forward techniques were then used to project the total pension liability computed as of June 30, 2020 to the June 30, 2021 measurement date.

The member census data and the asset information for this valuation were furnished as of June 30, 2020. We did not audit the information provided, but we did review it thoroughly for reasonableness and compared it with the prior year's submission for consistency.

Actives and inactives with no date of birth are assumed to be the average age of the member population with their respective status. Additionally, payroll for new hires is annualized, and actives missing a salary are assumed to earn the average active salary amount. For members reported with no gender, the member is assumed to be female.

Other Technical Valuation Procedures

Salary increases are assumed to apply to annual amounts.

Decrements are assumed to occur at the beginning of the year. Standard adjustments are made for multiple decrements.

No actuarial liability is included for participants who terminated without being vested prior to the valuation date.





Accrued Service Service credited under the system that was rendered before the

date of the actuarial valuation.

Actuarial Assumptions Estimates of future experience with respect to demographic or

economic events. Demographic assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term

average rate of inflation.

Actuarial Cost Method A mathematical budgeting procedure for allocating the dollar

amount of the actuarial present value of retirement system benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding

method."

Actuarial Equivalent A single amount or series of amounts of equal value to another

single amount or series of amounts computed on the basis of a

given set of actuarial assumptions.

Actuarial Accrued Liability The difference between the actuarial present value of system

benefits and the actuarial value of future normal costs. Also

referred to as "accrued liability" or "actuarial liability."

Actuarial Present Value The amount of funds currently required to provide a payment

or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest

and by probabilities of payment.

Amortization Paying off an interest-discounted amount with periodic

payments of interest and principal, as opposed to paying off

with lump sum payment.

Experience Gain (Loss) The difference between actual experience and actuarial

assumptions anticipated experience during the period between

two actuarial valuation dates.

Normal Cost The actuarial present value of retirement system benefits

allocated to the current year by the actuarial cost method.

Unfunded Actuarial Accrued Liability The difference between actuarial liability and the actuarial

value of assets. Sometimes referred to as "unfunded accrued

liability" or "unfunded liability".

Most retirement systems have unfunded actuarial liability.

They arise anytime new benefits are added and anytime an

actuarial loss is realized.